

SPECULATIONS ON THE IMPLICATIONS OF DATA DEPENDENCY

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INTRODUCTION

In a recent article for **Project Syndicate** entitled *Analytical Volatility is Worse than Market Whiplash* (August 30, 2024), Mohamed El-Erian speculated that the Fed has “eschewed strategic anchors and become overly dependent on high-frequency data releases” – or in other words, become a data dependent Fed. **HE** believes that in business and other institutions, “corporate culture” could substitute for “strategic anchors”.

NOTATION FOR ANALYSIS

Let A, B, C etc. stand for a series of data releases, events, news, shocks or similar and let A1 stand for the resulting conclusions, decisions, probabilities etc. that emanate from such a series of events, news or otherwise. We can then write:

$$A, B, C \implies A1$$

For example, A, B and C could be a series of drug trials and A1 the resulting probability distribution following standard Bayesian updating. Now let events D, E follow so that:

$$A1 + D, E \implies A2$$

But suppose that:

$$A, B, C, D, E \implies B1$$

where A2 and B1 are different. If just frequencies were involved, then A2 and B1 would be the same and we can write this as $A2 = B1$ (e.g. Bayesian updating). But El-Erian’s point is that D and/or E could result in a change of strategy etc. (perhaps radical change) from A2 to B1 absent “strategic anchors”. Reviewing recent history, we might consider the “transitory inflation” episode of a few years ago a situation where “strategic anchors” overrode “data dependence.” El-Erian now considers the opposite could be the case with the latest data the dominant factor. If so, strategy could change with every “high-frequency” occurrence or news release making for excessive volatility.

El-Erian quotes the case of a major Wall Steet firm revising its US recession probability from 15% to 25% and then lowering it to 20% some two weeks later in response to data releases. Possibly “strategic anchors” would have seen the 20% rate as the first and only change ?

IMPLICATIONS FOR PROBABILITY ASSESSMENT

For structural settings as in drug trials, opinion polling etc., traditional Bayesian revision procedures would still appear to rule. The emergence of high-frequency less structured information, news etc. and the social media universe may necessitate more holistic revision (as in the “more likely” approach) reflecting the speed with which public opinion etc. may change direction. And AI may enhance logical reasoning from new developments at a faster pace than historically has been the case, rendering “strategic anchors” less relevant.

Using the above notation, it is possible that assessment of a series of events as in A to E leading to B1 may reveal patterns etc. that could be missed in an A1 + D, E assessment leading to A2. The “more likely” approach is used in probability assessment on this website.

REFERENCES

- Hughes, W.R. (2022a). A new approach to probability assessment. *Chinese Business Review*, 21(1), 16-18.
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